IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

M.D.R., a minor, by her parent and natural guardian Lianni Rosy Rivera	:	**CIVIL ACTION**
v.	:	**NO. 22-621**
TEMPLE UNIVERSITY HOSPITAL	:	

MEMORANDUM

KEARNEY, J. **October 26, 2022**

Former patients suing Pennsylvania hospitals for negligence by obstetricians in the delivery room must offer expert testimony defining the obstetrician's standard of care and then showing how the obstetrician deviated from the defined standard of care causing the alleged birth injury. We ensure our gatekeeping function to avoid misleading the jury with unreliable medical theories.

We today address the present status of international expertise on the cause for an admittedly unpredictable shoulder dystocia in a fetus during delivery resulting in permanent brachial plexus injury upon a completed delivery. We evaluate the patient's expert opinion as to a deviation from an undefined standard of care and two expert opinions as to causation arising from a permanent injury to the right arm of the baby during birth. The experts' proffered opinions rely entirely on a theory of causation unsupported by medical literature or the adduced facts. The patient's experts opine permanent brachial plexus injury occurs as a direct result of the application of excessive traction by the obstetrician to a baby's head following its delivery and the natural forces of labor cannot cause, and have never been proven to cause, such an injury. The patient asks us to present opinions there can only be one cause of her injury. The patient hopes to ask the jury to speculate on matters not accepted in the medical community and assume facts not documented in the medical records or in depositions of the obstetricians present at the delivery.

We held an extensive evidentiary hearing where the hospital's unchallenged expert physician, an obstetrician and maternal fetal medicine expert, detailed the standard of care and highlighted numerous problems in asking a jury to rely on the patient's proffered expert opinions of presumed *res ipsa loquitur* causation. The hospital's rebuttal opinion, combined with our evaluating hundreds of pages of medical literature and reports from recognized worldwide experts, confirms the patient's proffered experts fail to establish a medically reliable basis for the jury to assume a deviation from a defined standard of care caused the injury solely because the injury occurred. And absence of a single medical note suggesting excessive force by the physicians confirm there is no evidence suggesting a physician applied excessive force or pressure to the baby's head and neck during delivery. There is no basis whatsoever for a jury to consider whether the obstetricians caused the permanent brachial plexus.

The patient cannot show deviation from the standard of care or causation as a matter of law. We grant the hospital's motion to preclude the unreliable expert opinions. We then must grant the hospital's motion for summary judgment as the patient offers no expert opinion explaining a deviation from a defined standard of care during delivery caused the injury.

I. Introduction[1]

M.D.R. through her mother and guardian Lianni Rosy Rivera sues Temple University Hospital for medical malpractice she believes occurred during M.D.R.'s birth nearly twelve years ago. There is no dispute M.D.R. suffers from a permanent brachial plexus injury to her right arm arising at birth.

Temple Hospital moves for summary judgment arguing M.D.R. cannot adduce admissible expert opinions from her two proffered experts necessary to proceed to a jury on her malpractice claim under the now familiar *Daubert* standard.[2] We address opinions of M.D.R.'s experts

regarding the standard of care and the cause of her permanent brachial plexus injury. Her expert obstetrician Jeffrey Soffer, M.D. opines Ms. Rivera received "sub-standard" care from the obstetricians involved in the delivery of her baby M.D.R at Temple Hospital and opines such an injury occurs ***only*** as a direct result of the obstetrician's application of excessive "traction" on the baby's head and ***cannot*** be caused by the natural forces of labor.[3] M.D.R.'s other expert, Daniel Adler, M.D., a pediatric neurologist, opines a permanent brachial plexus injury is caused ***only*** by excessive force applied to a baby's head by the obstetrician during delivery and the maternal forces of labor have ***never*** been shown to be a cause of permanent brachial plexus injury.[4]

A. What is a brachial plexus injury?

The brachial plexus is "the network of nerves that send signals from the spinal cord to the shoulder, arm and hand. A brachial plexus injury occurs when these nerves are stretched, compressed, or in the most serious cases, ripped apart or torn away from the spinal cord."[5] Brachial plexus injuries may occur in many ways, including during the birthing process.[6] Injuries can range from numbness and weakness in the arm to complete lack of movement and feeling in the arm, including the shoulder and hand.[7]

We are concerned here with a neonatal brachial plexus injury or "palsy" presenting in a newborn "as a weak or paralyzed upper extremity, with the passive range of motion greater than the active."[8] There are various risk factors associated with neonatal brachial plexus injury, including shoulder dystocia.[9]

Shoulder dystocia is defined as "a delivery that requires additional obstetric maneuvers following failure of gentle downward traction on the fetal head to effect delivery of the shoulders."[10] Shoulder dystocia is diagnosed upon delivery of the baby's head but the baby's shoulders fail to deliver because a shoulder is impacted – or in layman's terms "stuck" – behind

the mother's pelvic bones as the fetus moves in the course of labor and delivery.[11] There is a difference between shoulder dystocia resulting from the impaction of the baby's anterior shoulder ("anterior" meaning "situated in front of or in the forward part of an organ") behind the mother's pubic bone and dystocia resulting from impaction of the posterior shoulder ("posterior" meaning "situated in the back of, or in the back part of, a structure") at the level of the mother's "sacral promontory" at the bottom of the spine.[12] Dystocia from impaction of the anterior shoulder is evident on delivery of the baby's head while dystocia from impaction of the posterior shoulder occurs before delivery of the baby's head and is not clinically apparent at the time of its occurrence.[13]

We are concerned with an anterior shoulder dystocia. When a baby's anterior shoulder is stuck behind the mother's pubic bone, the obstruction of the affected shoulder widens the angle between the baby's neck and impacted shoulder and stretches the brachial plexus nerve.[14] Brachial plexus stretch can be increased by traction applied by the clinician "typically described as a downward lateral traction, with bending of the fetus' neck away from the anterior shoulder," but "in the presence of shoulder dystocia, even properly applied axial traction will necessarily increase stretch of the brachial plexus."[15]

A brachial plexus injury can be either temporary or "persistent." A persistent brachial plexus injury is defined as residual neurologic dysfunction twelve or more months after birth.[16] There is no dispute M.D.R. suffered a permanent/persistent brachial plexus injury to the right anterior shoulder after shoulder dystocia.[17]

There are two major components to the forces of labor and the delivery process: (1) compression; and (2) traction.[18] Compression is the pushing force of the labor process, that is, the maternal forces of labor. In the mechanics of delivery, uterine contractions and maternal pushing

produce pressure or force within the uterus moving the fetus into and through the birth canal.[19] Traction is a pulling force applied by the clinician to the baby's head and spine in a downward motion but without bending the baby's neck laterally toward the floor or ceiling.[20] The application of gentle traction in both an uncomplicated delivery and resolution of shoulder dystocia is consistent with the standard of care. At issue in this case is the cause of M.D.R.'s permanent brachial plexus injury: what caused the permanent brachial injury to M.D.R.'s anterior arm after shoulder dystocia? M.D.R.'s experts opine a ***permanent*** brachial plexus injury can ***only*** be caused by clinician-applied excessive traction and ***never*** by the maternal forces of labor. Temple Hospital moves for summary judgment and to preclude M.D.R.'s experts opinions, arguing (1) there are no facts to support a clinician applied anything other than normal traction here, and (2) the opinion a permanent injury can only be caused by clinician-applied traction lacks scientific support and is speculative and unreliable.

B. The American College of Obstetricians and Gynecologists 2014 Task Force on brachial plexus injury confirms multiple possible causes of injury.

The American College of Obstetricians and Gynecologists ("ACOG") convened a task force on neonatal brachial plexus palsy in 2011 "to develop a comprehensive report summarizing the scientific literature on this subject."[21] The expert task force included maternal-fetal medicine specialists, a neonatologist, a neurosurgeon, and a biomechanical engineer. Robert Gherman, M.D., an obstetrician and maternal fetal medicine specialist retained by Temple Hospital and testifying before us, chaired the task force. M.D.R.'s expert Dr. Soffer is an ACOG Fellow.

The task force's study culminated in a 2014 report on brachial plexus injury (the "2014 ACOG report" or "2014 report"). [22] After studying the physiology and causation of brachial plexus injury, the task force concluded the cause of brachial plexus injury ***cannot be attributed only*** to traction applied by the clinician:

- ***No published clinical or experimental data exist to support the contention that the presence of persistent (as compared to transient) [neonatal brachial plexus palsy] implies the application of excessive force by the birth attendant***. A single case report describes a case of persistent [neonatal brachial plexus palsy] in a delivery in which no traction was applied by the delivering physician and no delay occurred in delivering the shoulders. Therefore, ***there is insufficient scientific evidence to support a clear division between the causative factors of transient*** [neonatal brachial plexus palsy] ***versus persistent*** [neonatal brachial plexus palsy].[23]

- In addition to research within the obstetric community, the pediatric, orthopedic, and neurologic literature ***now stress that the existence of [neonatal brachial plexus palsy] following birth does not a priori indicate that exogenous forces are the cause of this injury***. The pediatric neurologic community also has reviewed the literature on causation and has similarly concluded that, "***The obstetrician's efforts to relieve shoulder dystocia are not the whole explanation for brachial plexus birth injuries. Expulsive forces … generated by the uterus and the abdominal wall … may be contributory in many cases***."[24]

- ***Neither high-quality nor consistent data exist to suggest that [neonatal brachial plexus palsy] can be caused only by a specific amount of applied force beyond that typically used by health care providers and experienced during delivery without [neonatal brachial plexus palsy***]. Instead, much of the data suggest that the occurrence of [neonatal brachial plexus palsy] is a complex event, dependent not only on the forces applied at the moment of delivery, but also on the ***constellation of forces*** (e.g., vector and rate of application) that have been ***acting on the fetus during the labor and delivery process***, as well as individual fetal tissue characteristics ….[25]

II. Undisputed facts of M.D.R.'s delivery.

Lianni Rosy Rivera presented to Temple Hospital on December 21, 2010 for the full-term delivery of her baby. After laboring overnight, obstetrician Clinton Turner, M.D. assumed responsibility as the attending physician on the morning of December 22, 2010.[26]

Ms. Rivera began delivery of her baby at 11:52 a.m. with spontaneous delivery of baby M.D.R.'s head at 12:38 p.m.[27] Ms. Rivera's mother and sister accompanied her in the delivery room.[28] Two obstetrical residents attended to Ms. Rivera; first-year resident Amanda Horton, M.D. and third-year resident Nadia Gomez, M.D.[29] Dr. Horton diagnosed a shoulder dystocia upon delivery of baby M.D.R's head.[30] M.D.R.'s right shoulder presented as the anterior shoulder.

Dr. Turner, as the attending physician, took over delivery of M.D.R. from Dr. Horton. Dr. Turner delivered M.D.R. at 12:40 p.m., two minutes after Dr. Horton diagnosed shoulder dystocia.[31] M.D.R. suffered a right arm brachial plexus injury and a left arm humeral fracture.[32] M.D.R. weighed 10 pounds, 1.4 ounces at delivery.[33]

Shoulder dystocia requires additional obstetrical maneuvers after failure of the clinician's attempt to deliver the shoulders, including application of gentle downward traction on the baby's head.[34] Dr. Turner testified when shoulder dystocia is diagnosed, it is his customary practice to apply certain maneuvers and apply gentle traction to the baby's head to dislodge the shoulders.[35] Dr. Turner testified he employed maneuvers to facilitate delivery of M.D.R.[36]

Dr. Turner testified one of the residents, whom he believed to be Dr. Horton, would have applied gentle traction to M.D.R.'s head and, while he does not recall Dr. Horton applying excessive traction, he would have noted it in the medical record if anything other than normal traction had been applied.[37] Dr. Turner testified residents are trained to apply as little traction as necessary on the baby during delivery.[38] The record on summary judgment does not include the medical records for Ms. Rivera's pre-natal care or from her hospitalization for M.D.R.'s delivery. There is no evidence of the use of excessive traction by a clinician.

Dr. Horton does not recall any events from the hospitalization of Ms. Rivera or the delivery of M.D.R.[39] Dr. Gomez, the third year resident, testified she recalled Dr. Horton applying gentle traction to M.D.R.'s head at which point the shoulders did not deliver and Dr. Turner took over delivery of M.D.R.[40] Neither Ms. Rivera nor her mother or her sister were able to testify to the amount of traction applied to M.D.R.'s head.[41] There is nothing in the record to substantiate excessive traction applied to M.D.R.'s head and neck during delivery.

M.D.R. underwent corrective surgeries in 2011 and 2014 to repair her brachial plexus

injury.[42] M.D.R.'s right brachial plexus injury persists, characterized as both cosmetic (reduced girth and length of her right arm) and functional (loss of movement of her right arm).[43]

III. M.D.R.'s adduced expert opinions on Temple Hospital's liability.

M.D.R.'s two experts, obstetrician Dr. Soffer and pediatric neurologist Dr. Adler, opine Temple Hospital can be liable when physicians in the hospital cause a permanent brachial plexus injury because the injury can ***only*** have been caused by the traction applied by an obstetrician and cannot have been caused by maternal forces of labor. Dr. Soffer also opines on the deviation from the standard of care by Dr. Turner and Dr. Horton without defining the standard of care.

A. Obstetrician Dr. Soffer's opinions on deviation and causation.

Dr. Soffer is a licensed physician in New Jersey board certified in Obstetrics and Gynecology and an ACOG Fellow.[44] He proffers two opinions: (1) on the standard of care: within a reasonable degree of medical certainty the obstetricians provided sub-standard care to Ms. Rivera during the delivery of M.D.R. resulting in M.D.R.'s permanent brachial plexus injury; and (2) on causation: M.D.R.'s permanent brachial plexus injury can ***only*** have been caused by clinical error, foreclosing the possibility maternal forces of labor could have caused the injury. [45]

With regard to causation, Dr. Soffer opines:

- Permanent brachial plexus injury occurs as a direct result of excess lateral traction being applied to the fetal head following its delivery;
- "Studies" show at least forty pounds of pressure is needed to cause a permanent injury to the brachial plexus, and during a "normal" vaginal delivery less than ten pounds of pressure is exerted to accomplish delivery;
- The injury to the brachial plexus occurred either following the delivery of the head by Dr. Horton or by Dr. Turner during his initial attempt at delivery or in between the application of the internal maneuvers;
- The natural forces of labor ***cannot cause a permanent brachial plexus injury***; and
- Injury to the brachial plexus occurs after the delivery of the fetal head as a result of

excess lateral traction in an otherwise healthy fetus.[46]

Dr. Soffer refers to four articles supportive of his opinions. Two of the three sources included in the record relied on by Dr. Soffer were authored before ACOG's 2014 report. Dr. Soffer does not rely on, refer to, or attempt to distinguish ACOG's 2014 report.

B. Pediatric neurologist Dr. Adler's opinion on causation.

Dr. Adler is a pediatric neurologist who offers his opinion on causation.[47] Dr. Adler recognizes "some" unidentified sources "argue" permanent neonatal brachial plexus injury may occur from the maternal forces of labor, but concludes maternal forces of labor "have never been proven" to be the cause of such injury.[48] He does not indicate who or which source recognizes permanent brachial plexus injury may occur from the maternal forces of labor and he does not recognize or attempt to distinguish ACOG's 2014 report. Although he recognizes at least some sources support the theory permanent brachial plexus injury may occur from maternal forces of labor, Dr. Adler opines:

- "[T]he maternal forces of labor ***have never been proven to be the cause*** of a permanent neonatal brachial plexus [injury] when the fetus does not have exaggerated risk of nerve stretch";[49]

- The degree of forceful stretch required to produce the traumatic neonatal brachial plexus injury seen in this case did not occur from the forces of labor nor from the mother pushing during labor;

- Experimental studies performed on neonatal nerves suggest the force required to physically disrupt the fifth cervical nerve is at least forty-four to eighty-eight pounds. Experimental studies suggest the forces of labor do not reach these levels and therefore do not cause permanent brachial plexus [injury];

- The traumatic neonatal brachial plexus [injury] in this [case] occurred after the fetal head was delivered as a result of the movement of the fetal head supplied by the operator.[50]

Dr. Adler relies on six articles to support his position, including two relied upon by Dr. Soffer.

IV. M.D.R.'s theory to address lack of evidence evolves at our *Daubert* hearing.

We held a *Daubert* hearing. Temple Hospital called its expert Dr. Gherman and proffered his expert report and rebuttal report to Dr. Soffer's and Dr. Adler's opinions.[51] M.D.R. did not call her experts because they were not available for the hearing.[52]

Dr. Gherman testified:

- There is no scientific basis for Dr. Soffer's opinion at least forty pounds of pressure is needed to cause a permanent injury to the brachial plexus;
- There is no scientific basis to pinpoint when or how a brachial plexus injury occurred, rebutting Dr. Soffer's opinion injury to the brachial plexus occurred either following the delivery of M.D.R.'s head by Dr. Horton or by Dr. Turner during his initial attempt at delivery or in between the application of the internal maneuvers;
- There is no scientific basis to support Dr. Soffer's opinion a permanent injury can only occur from clinician-applied excessive traction and the sources Dr. Soffer relied on do not support his opinion;
- There is no scientific basis to support Dr. Adler's opinion the only cause of a permanent brachial plexus injury is inappropriately applied force by the clinician;
- The medical evidence shows not all brachial plexus injuries are traction mediated events, as much as forty to seventy-five percent of brachial plexus injuries occur without shoulder dystocia, and the current medical literature supports brachial plexus injury can occur with appropriately managed shoulder dystocia;
- Dr. Soffer and Dr. Adler looked at the resulting brachial plexus injury and then backed into causation, attributing the cause to clinician-applied traction against the medical literature;
- Medical studies show no change in the rate of brachial plexus injury;
- Based on his review of the medical records and depositions, nothing in the record shows a deviation from the standard of care by the obstetricians in this case;
- The application of traction is within the standard of care both diagnostically and delivery as a maneuver to resolve shoulder dystocia;
- Most medical studies show an obstetrician will apply traction where shoulder dystocia is presented and there are no articles of which he is aware where no traction is applied;
- While there is no standard of care for the recording in the medical record of the amount of pressure, force, or traction applied in a delivery, in his opinion an obstetrician has a moral

and ethical obligation to document a problem occurring with the application of traction.

M.D.R. did not move to preclude Dr. Gherman's opinion and does not challenge Dr. Gherman's qualifications or the reliability or fit of his expert reports. The record on summary judgment does not include a reference to M.D.R. deposing Dr. Gherman. Her counsel instead chose our hearing to depose Dr. Gherman spending the majority of the *Daubert* hearing challenging the reliability of Dr. Gherman's opinions rather than demonstrating, by the preponderance of the evidence, the reliability of Dr. Soffer's and Dr. Adler's opinions.

M.D.R.'s counsel's theory of the case evolved during the hearing. Before the *Daubert* hearing, M.D.R.'s counsel opposed the *Daubert* relief arguing the challenges affect the weight or import the jury should attach to Dr. Soffer and Dr. Adler's opinions. M.D.R.'s counsel did not challenge admissibility.[53] M.D.R.'s briefing argued Dr. Soffer's and Dr. Adler's opinions are based on peer-reviewed articles, scientifically tested causation theories, and are not novel or untested theories prohibited by Federal Rule of Evidence 702. M.D.R. argued her experts and Temple Hospital's experts represent "contrary schools of thought" on permanent brachial plexus injury subject to trial and the jury's factfinding.

M.D.R.'s briefing relied on two articles to support her argument there are competing schools of thought on the causation of a ***permanent*** brachial plexus injury: *Prevention of brachial plexus injury — 12 years of shoulder dystocia training: an interrupted time-series study* (for ease of reference "the Crofts article") and *Causation of permanent brachial plexus injuries to the anterior arm after shoulder dystocia – Literature review* (for ease of reference "the Draycott article").[54] At the hearing, M.D.R.'s counsel argued the Draycott article addresses a subset of permanent brachial plexus injury: (1) permanent injury to the (2) anterior arm; (3) after shoulder dystocia. The Draycott article concludes this subset of injury "is likely to be [attributed] to a single

cause: excessive traction" applied by the physician.[55]

M.D.R.'s counsel questioned Dr. Gherman about the Draycott article. Dr. Gherman testified the Draycott article concedes "we are not yet in the territory of *res ipsa loquitur*," rejecting Dr. Soffer's and Dr. Adler's causation opinion.

M.D.R.'s counsel also argued, and questioned Dr. Gherman on, the Crofts article which studied 17,000 births at a England hospital after it implemented a shoulder dystocia management training program. M.D.R.'s counsel argued the Crofts article supports Dr. Soffer's and Dr. Adler's opinions excessive clinician-applied traction is the ***only*** cause of a permanent brachial plexus injury. M.D.R.'s counsel argued the Crofts article showed no permanent brachial plexus injury out of the 17,000 births after implementation of the training program and, in the absence of even one case, we can conclude all permanent brachial plexus injury must have be caused by the clinician.

Dr. Gherman testified the Crofts article does not support such a conclusion and the data in the Crofts article is not statistically significant. Referring to a table in the Crofts report, Dr. Gherman testified of 562 cases of shoulder dystocia out of 17,000 births, the rate of permanent injury fell from .38% to 0% but this is statistically insignificant.

Dr. Gherman further testified he reviewed the medical records and depositions and found ***no*** evidence a clinician applied inappropriate traction during M.D.R.'s delivery. So M.D.R. offered a new theory not contained in the briefing: there is a general under-reporting of traction applied in shoulder dystocia cases by physicians from which we can conclude the obstetricians in this case did not sufficiently report traction or shoulder dystocia in the medical record here. M.D.R. does not provide us with medical literature or other basis for his under-reporting speculation.

M.D.R. asks us to deny summary judgment and allow the jury to consider Dr. Soffer's and Dr. Adler's opinions ***only*** clinician-applied excessive traction can cause a permanent brachial

plexus injury and can ***never*** be caused by the maternal forces of labor: (1) without a single medical source supporting such a theory; and, (2) without a fact to support the application of excessive traction based on a theory, unsupported by any medical literature and raised only when faced with the absence of supporting evidence at our hearing, of the under-reporting of applied traction by clinicians generally. We will not jump through these hoops based solely on the *ipse dixit* of her experts and counsel.

V. Analysis

M.D.R. sues Temple Hospital for negligence under Pennsylvania law arising from the conduct of treating obstetricians in the hospital's delivery room.[56] To prevail, M.D.R. must persuade the fact-finder with credible facts and partial expert evidence of (1) a duty owed by the hospital through its doctors to her; (2) a breach of the standard of care imposed by the duty; (3) the breach of the duty proximately caused the harm; and (4) damages suffered as a direct result of the harm.[57] M.D.R. cannot rely on lawyer's and laypersons' theories or arguments except in very limited patently obvious errors because a physician's alleged negligence encompasses "matters not within the ordinary knowledge and experience of laypersons [and] a medical malpractice plaintiff must present expert testimony to establish the applicable standard of care, the deviation from that standard, causation and the extent of the injury"[58]

The Supreme Court, through Federal Rule of Evidence 702, provides the standard for the admission of expert testimony: "A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably

applied the principles and methods to the facts of the case."[59]

Our Court of Appeals describes Rule 702 as a "'trilogy of restrictions on expert testimony: qualification, reliability[,] and fit.'"[60] We act "as a 'gatekeeper' to ensure that 'any and all expert testimony or evidence is not only relevant, but also reliable.'"[61] As gatekeeper, we have three duties: "(1) confirm the witness is a qualified expert; (2) check the proposed testimony is reliable and relates to matters requiring scientific, technical, or specialized knowledge; and (3) ensure the expert's testimony is 'sufficiently tied to the facts of the case,' so that it 'fits' the dispute and will assist the trier of fact."[62] "The text of Rule 702 contains no exception to these requirements, so if they are not satisfied, an expert cannot testify before the 'trier of fact.'" [63] While we have discretion in applying Rule 702's restrictions, we do not have discretion to abandon our gatekeeping function or to perform the function inadequately.[64]

The reliability threshold requires an expert's opinion to be "based on the methods and procedures of science, not on subjective belief and unsupported speculation."[65] "Rule 702 has a 'liberal policy of admissibility.'"[66] But we must look "to whether the expert's testimony is supported by 'good grounds.'"[67] We are instructed by our Court of Appeals this is not intended to be a high standard or applied in a way requiring a plaintiff "to prove [her] case twice"; a plaintiff need only demonstrate by a preponderance of the evidence her expert's opinions are reliable.[68]

A. We exclude Dr. Soffer's proffered opinions as not reliable.

Dr. Soffer proffers his opinion on a deviation from the standard of care and of causation. Dr. Soffer does not provide us with an opinion on the standard of care. He simply concludes "sub-standard care was exhibited by the Obstetricians [sic] administering care to Ms. Rivera during her delivery … resulting in her child's permanent brachial plexus injury."[69] He then conflates a perceived deviation from the standard of care with causation and opines permanent brachial plexus

injury occurs "as a direct result of excess lateral traction being applied to the fetal head following its delivery"; the injury to M.D.R. "occurred either following the delivery of the head by Dr. Horton or by Dr. Turner during his initial attempt at delivery or in between the application of the internal maneuvers"; and the natural forces of labor cannot cause a permanent brachial plexus injury. The categorical opinions a permanent brachial plexus injury can never be caused by the natural forces of labor and can only be caused by the clinician is not supported by the medical evidence.

With regard to the standard of care, Dr. Gherman testified at the *Daubert* hearing "there is a role for traction" both in the diagnosis of shoulder dystocia and as a maneuver to deliver a baby and most medical literature supports the application of traction when there is shoulder dystocia, including Gabbe's Obstetrics manual noting the use of traction is inherent in the management of the majority of vaginal deliveries and in the management of shoulder dystocia cases.[70] We have no other evidence of the standard of care in the record before us.

Regarding causation, Dr. Soffer — who is himself an ACOG Fellow — entirely ignores the 2014 ACOG report which does not support Dr. Soffer's categorical opinions.[71] The articles relied on by Dr. Soffer do not support his categorical opinion. For example, M.D.R. relies heavily on the 2007 article authored by Robert Allen, Ph.D, *On the Mechanical Aspects of Shoulder Dystocia and Birth Injury*.[72] Dr. Allen's article does not conclude the maternal forces of labor can never produce a permanent brachial plexus injury. The article recognizes both the forces of labor ***and*** a clinician's application of force. Dr. Allen's article does not conclude maternal forces of labor can never be the cause of a permanent brachial plexus injury. To the contrary, Dr. Allen recognizes "brachial plexus evidence a [sic] birth do occur ***in the absence of recorded or probable shoulder dystocia or in the absence of traction altogether*** …"[73]

M.D.R. also directs our attention to the article *Prevent of brachial plexus injury – 12 years of shoulder dystocia training: an interrupted time-series study* published in 2015 by several clinicians in England.[74] Over 17,000 babies were born over the course of the study, with no baby suffering from a permanent brachial plexus injury to which the authors attribute to a shoulder dystocia training program. M.D.R. argues the fact that none of the 17,000 babies suffered a permanent brachial plexus injury by clinicians trained in the program must mean clinician application of traction is "***the*** mechanism of injury."[75] But the study itself does not make the conclusion Dr. Soffer posits: physician error must be the cause of the injury and maternal forces of labor cannot cause the injury. And at our *Daubert* hearing, Dr. Gherman explained the conclusion M.D.R. hopes to draw from the absence of a permanent brachial plexus injury after training is not statistically significant.

Dr. Soffer also relies on a 2007 article authored by Edith Gurewitsch, M.D. and Dr. Allen, *Shoulder Dystocia*.[76] The article does not support Dr. Soffer's argument. It instead rejects Dr. Soffer's theory the mere existence of a permanent brachial plexus injury from birth necessarily "bespeaks negligence of misconduct on the part of the delivering clinician."[77] Dr. Gurewitsch's and Dr. Allen's study flatly rejected M.D.R.'s theory a permanent brachial plexus injury is exclusively caused by clinician-applied traction and rejected the "conflation of causation with the standard of care – as the allegation of *res ipsa loquitor* ***does not have evidentiary support in the available medical literature***":[78]

> Just as it is compelling to believe that every misadventure in the process of labor and delivery could have been foreseen and forestalled, so too is the notion that if handled properly conditions that may predispose to injury should never actually result in injury. Such is the standard allegation by plaintiffs' attorneys (and many of their experts): ***The mere existence of a permanent brachial plexus palsy that was present from birth – no matter its extent or classification – necessarily bespeaks negligence or misconduct on the part of the delivering clinician***. Whether it was failure to diagnose shoulder dystocia or use of excessive traction during its management, the critical – indeed the

> only – determinant of permanent injury, according to the proponents of this argument, had to have been the clinician. Setting aside the facts that there are other non–birth process–related causes of congenital brachial plexus palsy and that temporary brachial plexus injuries occur in the absence of recorded shoulder dystocia or even traction to the fetal head, ***it is far more common that permanent brachial plexus injuries are the domain of shoulder dystocia–complicated births and it is well established that obstetric brachial plexus injuries are stretch-induced injury is readily, although not necessarily exclusively, produced by clinician-applied traction. Although this traction was excessive for the injured brachial plexus nerves, it may not have been excessive for delivery. This issue – the conflation of causation with the standard of care – as the allegation of res ipsa loquitur does not have evidentiary support in the available medical literature***.[79]

To the extent M.D.R. suggests Dr. Soffer "will rely" on the Draycott article, she does not support Dr. Soffer's categorical opinion a permanent brachial plexus injury can never be caused by the maternal forces of labor. The Draycott article begins by counseling us "we are not yet in the territory of *res ipsa loquitur*";[80] permanent brachial plexus injury to the anterior shoulder, like M.D.R.'s injury, is "more ***likely*** to be caused by" clinicians but is not the ***only*** cause;[81] and brachial plexus injury at birth "is associated with a heterogenous constellation of factors, ***which makes blanket statements about causation for all [neonatal brachial plexus injury] unhelpful and potentially misleading***."[82] And Dr. Gherman testified the Draycott article disclaims a *res ipsa loquitur* causation theory.

Dr. Soffer's proffered opinion is not supported by the facts or the science, including the sources on which he bases his opinion. It is instead based on a leap contradicted by his cited authorities. It is not reliable under Rule 702. We preclude Dr. Soffer's proffered opinion.

B. We exclude Dr. Adler's proffered opinion.

Dr. Adler opines, in part, the maternal forces of labor "have never been proven to be the cause" of a permanent brachial plexus injury where there is no "exaggerated risk" for nerve stretch such as cancer or infection.[83] Dr. Adler uses this unsupported statement as the basis to opine clinician-applied traction must be the cause of M.D.R.'s permanent brachial plexus injury because

the degree of forceful stretch required to produce the injury "seen in this case" did not occur from the forces of labor or Ms. Rivera's pushing during labor and because "experimental studies" suggest the force required to produce such an injury cannot be created by the forces of labor.[84] To the extent Dr. Adler's proffered opinion is a statement a permanent brachial plexus injury cannot be caused by maternal forces of labor, we preclude it for the same reasons we preclude Dr. Soffer's opinion. Dr. Adler may not categorically exclude maternal forces of labor in the face of medical literature, particularly the 2014 ACOG report, stating otherwise.[85]

Dr. Adler also opines the permanent injury suffered by M.D.R. ***in this case*** "occurred after the fetal head was delivered as a result of the movement of the fetal head supplied by the operator."[86] But there is ***no*** evidence of the application of inappropriate traction. Dr. Gomez testified Dr. Horton applied gentle traction. Dr. Turner testified he did not recall Dr. Horton applying excessive traction, residents are trained to apply as little traction as necessary, and if anything other than normal traction had been used, he would have noted it in the medical record. Dr. Adler's conclusion is not based on the facts. It is not reliable and it is not relevant absent a connection to the M.D.R. facts.

M.D.R.'s experienced counsel recognized this problem at our *Daubert* hearing. He then shifted gears to argue the three physicians would violate their oath and ignore their conduct in the medical records by not recording an inappropriate application of traction in the medical record. M.D.R. argues Dr. Turner testified to his awareness of traction being an injury-producing mechanism for brachial plexus injury and, in M.D.R.'s view, we are straining credulity to believe a doctor would have "acknowledged his own failure of supervision in permitting the application of excessive traction."[87] M.D.R.'s counsel then suggested because other patients sued Dr. Turner in other medical negligence actions "it seems improbable that such an admission of liability would

have been contained in any record he authored."[88] This wildly speculative assertion first raised in the crucible of a *Daubert* hearing is based on nothing more than conjecture about Dr. Turner and an unsupported theory obstetricians generally under-report the application of traction and/or shoulder dystocia.

M.D.R. cannot create a fact issue simply by speculating as to Dr. Turner's credibility without a single fact to support a theory of three doctors lying in their medical reports. Dr. Turner made sworn statements under oath. Our role at summary judgment is to construe all facts and inferences in favor of the non-moving party and "to determine whether there is a genuine issue for trial [and] not . . . to weigh the evidence and determine the truth of the matter."[89] Once Temple Hospital comes forward with record evidence there is no genuine issue of material fact, it is M.D.R.'s burden as the non-moving party to "identify facts in the record that would enable [her] to make a sufficient showing on essential elements of [her] case for which [she] [has] the burden of proof."[90] M.D.R. does not meet her burden.

Dr. Adler's proffered categorical opinions are not supported by the facts or the science, including the sources on which he bases his opinions. It is not reliable under Rule 702. We preclude Dr. Adler's proffered opinions.

VI. Conclusion

We are charged with a gatekeeping function in assessing proffered expert testimony. We closely studied the briefing, medical literature, and the testimony adduced at our *Daubert* hearing. M.D.R. failed to present an expert defining the standard of care. We have only Dr. Soffer who opines on a deviation from the standard of care based on his opinion the maternal forces of labor cannot – categorically – cause a permanent brachial plexus injury. The evidence presented to us shows the application of traction is within the standard of care. Like Dr. Soffer, Dr. Adler opines

the maternal forces of labor "have never been proven" to be the cause of a permanent neonatal brachial plexus injury in the absence of "exaggerated risk" factors.

None of the medical literature supports Drs. Soffer's and Adler's absolute and categorical opinion a permanent brachial plexus injury of the anterior shoulder in a shoulder dystocia case can ***only*** be caused by inappropriately applied traction, in both force and angle, by the clinician. M.D.R. urges us to accept this theory based on medical literature which does not support such a finding. Those same authorities instead counsel us to reject a *res ipsa loquitor* leap to causation in studying a permanent brachial plexus injury. And when confronted with lack of evidence in the medical record, M.D.R. (and not her experts) then ask us to accept an argument the lack of facts must be attributed to a general "under-reporting" – or worse yet, an obstetrician's intentional omission of relevant medical information from the medical record contrary to a physician's moral and professional responsibilities – of inappropriately applied traction and/or the presence of shoulder dystocia. We simply cannot, in our role as gatekeeper of expert testimony, admit Dr. Soffer and Dr. Adler's opinions.

We grant Temple Hospital's motion and enter summary judgment in its favor as M.D.R. did not adduce a reliable admissible expert opinion on an obstetrician's standard of care and causation when facing a shoulder dystocia during childbirth.

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[1] Our Policies require parties moving for relief under Fed. R. Civ. P. 56 include a Statement of Undisputed Material Facts ("SUMF") and an appendix to support summary judgment. Temple University Hospital filed its SUMF, Motion, and brief in support of summary judgment or, in the alternative, motion to preclude expert testimony of Plaintiff's experts Jeffrey Soffer, M.D. and Daniel Adler, M.D., and Appendix at ECF Doc. Nos. 32, 33, and 33–1 through 33–6. M.D.R. filed her response brief, response to Temple Hospital's SUMF, a supplemental SUMF, and supplemental Appendix at ECF Doc. No. 38. The United States joined in Temple Hospital's Motion and filed an additional expert report supplementing the appendix at ECF Doc. Nos. 37, 41. M.D.R. filed a sur-reply with an additional exhibit at ECF Doc. No. 47.

[2] *Daubert v. Merrell Dow Pharmaceuticals, Inc*., 509 U.S. 579 (1993). The United States, sued by Temple Hospital in a third-party complaint, joins in Temple Hospital's motion.

[3] ECF Doc. No. 33–2, Appendix ("Appx.") 456–57.

[4] *Id.*, Appx. 462–68. As a pediatric neurologist and not an obstetrician, Dr. Adler cannot opine on the obstetrical standard of care. M.D.R.'s counsel conceded this at our hearing.

[5] https://www.mayoclinic.org/diseases-conditions/brachial-plexus-injury/symptoms-causes/syc-20350235 (last visited October 24, 2022).

[6] *Id.*

[7] *Id.*

[8] ECF Doc. No. 33–3, Appx. 538, *Neonatal Brachial Plexus Palsy*, The American College of Obstetricians and Gynecologists (2014).

[9] *Id.*, Appx. 532.

[10] *Id.*, Appx. 578.

[11] *Id.*, Appx. 530.

[12] *Id.*, Appx. 530; Dorland's Medical Dictionary, 33rd ed. (2020).

[13] ECF Doc. No. 33–3, Appx. 530.

[14] *Id.*

[15] ECF Doc. No. 33–4, Appx. 561.

[16] ECF Doc. No. 33–3, Appx. 538.

[17] We understand the term "persistent" means "permanent" based on the experts' use of both terms.

[18] ECF Doc. No. 33–4, Appx. 561.

[19] *Id.*

[20] *Id.*

[21] ECF Doc. No. 33–3, Appx. 532.

[22] We take judicial notice of ACOG's website. No party disputes the role of ACOG in the medical community or the fact its task force issued its 2014 report. *Woods v. Showers*, 822 F. App'x 122,

126 (3d Cir. 2020) (citing Fed. R. Evid. 201(b)). According to its website, ACOG, founded in 1951, "is the premier professional membership organization for obstetrician–gynecologists. The College produces practice guidelines for health care professionals and educational materials for patients, provides practice management and career support, facilitates programs and initiatives to improve women's health, and advocates for members and patients. With more than 60,000 members spanning the entire career life cycle, ACOG is composed of 12 Districts. These Districts are made up of 98 Sections. ACOG's Districts and Sections represent various regions, countries, territories, and states in North and South America. ACOG Fellows are board-certified obstetrician-gynecologists whose professional activities are devoted to the practice of obstetrics and gynecology, who possess unrestricted licenses to practice medicine, and who have attained high ethical and professional standing." https://www.acog.org/about (last visited October 24, 2022).

[23] ECF Doc. No. 33–4, Appx. 565 (emphasis added).

[24] *Id.*, Appx. 574. "An exogenous force" in a vaginal delivery is the force applied directly to the fetus by a clinician's hands or through an instrument used to assist the natural, maternal forces to effect delivery. Exogenous forces include traction. *Id.*, Appx. 566.

[25] *Id.* (emphasis added).

[26] ECF Doc. No. 32, Temple Hospital SUMF ¶¶ 6–7. Delaware Valley Community Health, Inc. employed Dr. Turner who is deemed a United States Public Health Service employee for purposes of the Federally Supported Health Centers Assistance Act, 42 U.S.C. § 233. ECF Doc. No. 22, ¶¶ 4–5; ECF Doc. No. 25, ¶¶ 4–5. Dr. Turner is covered by the Federal Tort Claims Act (FTCA), 28 U.S.C. §§ 1346(b), 2671, as a public health service employee affording us subject matter jurisdiction.

[27] ECF Doc. No. 32, Temple Hospital SUMF ¶ 9.

[28] *Id.* ¶¶ 29, 31.

[29] *Id.* ¶ 12.

[30] *Id.* ¶¶ 9, 15, 23.

[31] *Id.* ¶ 23; ECF Doc. No. 33–2, Appx. 456.

[32] ECF Doc. No. 33–2, Appx. 456.

[33] *Id.*

[34] ECF Doc. No. 33–3, Appx. 533.

[35] ECF Doc. No. 32, Temple Hospital SUMF ¶ 18.

[36] *Id.* ¶ 11.

[37] *Id.* ¶¶ 19, 20.

[38] *Id.* ¶ 16.

[39] *Id.* ¶ 22.

[40] *Id.* ¶ 23.

[41] *Id.* ¶¶ 28–32.

[42] ECF Doc. No. 38, Appx. 833–38.

[43] ECF Doc. No. 38, M.D.R. Supplemental SUMF ¶ 6.

[44] ECF Doc. No. 33–2, Appx. 459.

[45] *Id.*, Appx. 456–57.

[46] *Id.*, Appx. 457 (emphasis added).

[47] Dr. Adler also provides a rebuttal report to Temple Hospital's and the United States' experts Christian Pettker, M.D., Dr. Gherman, and Joshua Abzug, M.D. The opinions of these experts do not change Dr. Adler's opinions. *See Id.*, Appx 470–74.

[48] ECF Doc. No. 33–2, Appx. 467. Dr. Adler concedes there are some medical conditions such as cancer or infection that can directly injure the nerves comprising the brachial plexus, but he ruled out those conditions in M.D.R.'s case. *Id.*

[49] *Id.*, Appx. 467 (emphasis added).

[50] *Id*.

[51] ECF Doc. Nos. 33–2, 33–3, Appx. 486–94; 496–502.

[52] ECF Doc. No. 50.

[53] *See* ECF Doc. Nos. 38, 47.

[54] ECF Doc. No. 38, Appx. 839–46; 847–51. Neither Dr. Soffer nor Dr. Adler relied on the Draycott article in support of their opinions. In her sur-reply, M.D.R. attaches a September 27, 2022 email from her counsel advising Temple Hospital's counsel Dr. Soffer and Dr. Adler "will rely" on the Draycott article. ECF Doc. No. 45 at 9. M.D.R.'s counsel sent this email to Temple Hospital's counsel a month after Dr. Soffer's and Dr. Adler's reports which do not rely on the Draycott article, after the deadline for expert discovery, after the deadline for filing *Daubert* motions and Motions for summary judgment, and after receiving Temple Hospital's motion. Temple Hospital objects to the inclusion of the Draycott article because Dr. Soffer and Dr. Adler

did not rely on it. At oral argument, Plaintiff's counsel did not provide a reasonable explanation for introducing the Draycott article not relied on by the experts.

[55] ECF Doc. No. 38, Appx. 849.

[56] M.D.R. sued Temple Hospital and Dr. Turner in the Philadelphia County Court of Common Pleas. Temple Hospital removed to this Court based on Dr. Turner's status as an employee of the United States Public Health Service covered by the Federal Tort Claims Act. ECF Doc. No. 1. The United States, on behalf of Dr. Turner, moved to be substituted for Dr. Turner and to dismiss the complaint because M.D.R. never submitted an administrative tort claim to the United States, a requisite to our subject-matter jurisdiction. ECF Doc. No. 5. We granted the United States' motion, substituting it for Dr. Turner and dismissed the action against it. ECF Doc. No. 17. Temple Hospital answered M.D.R.'s complaint and brought a third-party complaint against the United States for indemnity and contribution should the jury find M.D.R proved medical negligence. ECF Doc. No. 20. Temple Hospital today defends the action on the basis M.D.R. cannot establish negligence absent admissible expert testimony. Neither Temple Hospital nor the United States today address their respective liabilities (based on who employed which obstetrician) for the conduct in the delivery room nor do they factually discern which physician is responsible for which conduct.

[57] *Toogood v. Owen J. Rogal, D.D.S., P.C.*, 824 A.2d 1140, 1145 (Pa. 2003).

[58] *Id.* There is a "very narrow exception to the requirement of expert testimony in medical malpractice actions … [:] where the matter is so simple or the lack of skill or care so obvious as to be within the range of experience and comprehension of even non-professional persons … also conceptualized as the doctrine of *res ipsa loquitur*." *Id.* at 1145 (internal citation omitted). M.D.R. does not raise *res ipsa loquitur* and we need not consider *Toogood's* "narrow exception" to the requirement a medical malpractice plaintiff must present expert testimony to establish the applicable standard of care, deviation from the standard, causation, and injury. *See Warren v. Prime Care Med., Inc*, No. 20-3561, 2022 WL 4244273 (3d Cir. Sept. 15, 2022).

[59] Fed. R. Evid. 702.

[60] *Kuhar v. Petzl Co.*, No. 19-3900, 2022 WL 1101580, at *7 (3d Cir. Apr. 13, 2022) (quoting *Calhoun v. Yamaha Motor Corp., USA*, 350 F.3d 316, 321 (3d Cir. 2003)).

[61] *Pineda v. Ford Motor Co.*, 520 F.3d 237, 243 (3d Cir. 2008) (quoting *Kannankeril v. Terminix Int'l, Inc.*, 128 F.3d 802, 806 (3d Cir. 1997)).

[62] *UGI Sunbury LLC v. A Permanent Easement for 1.7575 Acres*, 949 F.3d 825, 832 (3d Cir. 2020) (quoting *Daubert*, 509 U.S. at 591). Temple Hospital does not challenge Dr. Soffer's or Dr. Adler's qualifications.

[63] *Id.* (citing Fed. R. Evid. 702).

[64] *Id.* (quoting *Kumho Tire v. Carmichael*, 526 U.S. 137, 158–59 (1999) (Scalia, J., concurring)).

[65] *Id.* (quoting *Karlo v. Pittsburgh Glass Works, LLC*, 849 F.3d 61, 80–81 (3d Cir. 2017)).

[66] *United States v. Li*, 819 F. App'x 111, 117 (3d Cir. 2020).

[67] *UGI Sunbury*, 949 F.3d at 834.

[68] *Oddi v. Ford Motor Co.*, 234 F.3d 136, 145 (3d Cir. 2000) (quoting *In re Paoli R.R.Yard PCB Litig.*, 35 F.3d 717, 744 (3d Cir. 1994)).

[69] ECF Doc. No. 33–2, Appx. 457.

[70] Dr. Gherman referred to the Gabbe source in his hearing testimony and cites to it in his rebuttal report at ECF Doc. No. 33–2 at 496–97.

[71] The 2014 ACOG Report is accepted by district courts as "the most authoritative source on obstetric issues." For example, in *Williams v. United States*, a mother sued on behalf of her daughter alleging a physician at a federally funded clinic negligently managed shoulder dystocia resulting in a permanent brachial plexus injury. *Williams v. United States*, 455 F. Supp. 3d 403 (E.D. Mich. 2020). After a bench trial, Judge Steeh issued findings of fact and conclusions of law. Judge Steeh rejected the mother's experts' testimony excessive force must have been applied by the clinician during the delivery in the absence of another cause for the baby's permanent brachial plexus injury. *Id.* at 413–14. Judge Steeh relied on authority from other federal and state courts addressing medical malpractice cases claiming excessive clinician-applied traction during shoulder dystocia causing brachial plexus injury. Judge Steeh concluded a plaintiff cannot meet his or her evidentiary burden by relying only on the fact of the brachial plexus injury itself. *Id.* (collecting cases).

Judge Steeh found credible eyewitness testimony supported his conclusion none of the clinicians used excessive traction on the baby's head during delivery and the medical literature shows the natural maternal forces of labor can cause brachial plexus injury and the fact of the injury itself "is not enough to conclude that the delivering obstetrician must have been negligent." *Id.* at 414.

Judge Steeh cited the 2014 ACOG report recognizing "ACOG is generally the most authoritative source on obstetric issues," ACOG's 2014 report "was created by experts in the fields of obstetrics, pediatrics, neurology, and biomechanical engineering," the authors of the 2014 report "reviewed all available peer-reviewed literature on the issue and ranked that literature based on the strength of its evidence," and plaintiff's experts did not dispute the ACOG 2014 report is the most authoritative source of scientific literature on shoulder dystocia and brachial plexus injury. *Id.* at 415–16. Judge Steeh concluded the 2014 ACOG report "directly addresses the dispute in this case" and shows maternal forces acting on the baby with impacted shoulders may cause transient and permanent cases of neonatal brachial plexus palsy. *Id.* at 416 (citing the 2014 ACOG paper). Judge Steeh concluded the mother failed to meet her burden to prove a breach of the standard of care by the physician and proximate cause between the alleged breach and the brachial plexus injury. *Id.* at 419.

[72] ECF Doc. No. 33–6, Appx. 788.

[73] *Id.*, Appx. 794–95.

[74] ECF Doc. No. 38, Appx. 839–46.

[75] ECF Doc. No. 38 at 8 (emphasis added).

[76] ECF Doc. No. 33–6, Appx. 806.

[77] *Id.*, Appx. 812.

[78] *Id.* (emphasis added).

[79] *Id.* (emphasis added) (internal citations omitted).

[80] ECF Doc. No. 38, Appx. 847.

[81] *Id.*, Appx. 850 (emphasis added).

[82] *Id.*, Appx. 848 (emphasis added).

[83] ECF Doc. No. 33–2, Appx. 467.

[84] *Id.*

[85] Our Court of Appeals rejected this same opinion from Dr. Adler in *Araoz v. United States* affirming Judge Shwartz's judgment in favor of the United States in a brachial plexus injury case. *Araoz v. United States*, 337 F. App'x 207 (3d Cir. 2009). Parents alleged the federally employed obstetrician applied excessive traction to the head of their baby during delivery resulting in a permanent brachial plexus injury. Parents produced the opinions of two experts, including Dr. Adler, who opined the natural forces of labor are insufficient to cause a permanent brachial plexus injury and only excessive lateral force on the brachial plexus nerve can cause the injury. *Araoz v. United States*, No. 06-2149, 2008 WL 11449314 (D.N.J. Mar. 24, 2008), *aff'd* 337 F. App'x 707 (3d Cir. 2009).

Judge Shwartz concluded after a bench trial the parents bear the burden of proving the obstetrician applied more than gentle traction, the mere occurrence of the brachial plexus injury alone is insufficient to infer negligence under state law, the medical studies in evidence showed injury can occur in babies who do not confront shoulder dystocia and without the application of traction, and the parents failed to present sufficient evidence to reject the studies and "cause the Court to embrace her theory that the ***only*** force during delivery that can cause the injury that [baby] sustained is doctor-applied force." *Id.*, 2008 WL 11449314 at * 13, n. 35 (collecting cases finding the medical literature shows brachial plexus injury can occur "spontaneously," without shoulder dystocia, and "for unknown reasons"). Judge Shwartz rejected Dr. Adler's opinion and further found parents ignored the medical studies "and the reality … [of] the concurrent presence of the forces of labor …" and the United States' expert's testimony "concurrent forces from different directions all place tension on the [brachial plexus] nerve and even a normal amount of traction

could be enough to cause the nerve to tear", concluding parents "did not present sufficient proof to discount the impact of these forces." *Id.* at *13.

Parents appealed, arguing primarily Judge Shwartz went beyond the record to conduct factual research – specifically a footnote collecting cases analyzing the medical literature finding brachial plexus injury can occur spontaneously, without shoulder dystocia, and for unknown reasons – and this research improperly influenced Judge Shwartz's decision making. *Araoz*, 337 F. App'x at 209. Our Court of Appeals rejected the parents' argument, finding Judge Shwartz based her conclusions on analysis of the record including medical literature discussed by the physician experts, consideration of parents' criticism of the literature relied on by the United States, consideration of literature presented by parents, and "***other studies showing that brachial plexus injury can occur in babies who do not experience shoulder dystocia and without the application of traction***." *Id.* at 210 (emphasis added). Our Court of Appeals concluded Judge Shwartz did not err in noting other courts' (in cases not cited by the parties) finding brachial plexus injury can occur spontaneously and as a result of causes other than doctor-applied traction, and affirmed Judge Shwartz's entry of judgment in favor of the United States.

[86] ECF Doc. No. 32–2, Appx. 467.

[87] ECF Doc. No. 38, Response to SUMF, ¶ 20.

[88] *Id.*

[89] *Peroza-Benitez v. Smith*, 994 F.3d 157, 164 (3d Cir. 2021) (quoting *Baloga v. Pittston Area Sch. Dist.*, 927 F.3d 742, 752 (3d Cir. 2019)).

[90] *Willis v. UPMC Children's Hosp. of Pittsburgh*, 808 F.3d 638, 643 (3d Cir. 2015) (citing *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986)).